Midterm practice: Solve with square rooting with $\pm$

Solve for x by undoing a series of operations. When you undo the squaring, remember to have a $\pm$ of the square root. You should do your work on a separate piece of paper. Answers are on the back, but shuffled.

1. Solve the following equation: $9\left((x-5)^2-13\right) = 27$

2. Solve the following equation: $\frac{1}{20}(x-6)^2+16 = 21$

3. Solve the following equation: $5(x-10)^2+3 = 128$

4. Solve the following equation: $\frac{1}{19}\left((x+7)^2-5\right) = 4$

5. Solve the following equation: $\frac{1}{9}\left((x+9)^2+11\right) = 4$

6. Solve the following equation: $\frac{1}{16}(x+4)^2+19 = 23$

7. Solve the following equation: $\frac{1}{8}(x-6)^2-2 = 6$

8. Solve the following equation: $4(x-8)^2-9 = 91$

9. Solve the following equation: $\frac{1}{8}(x+7)^2-3 = -1$

10. Solve the following equation: $3(x+6)^2-18 = 30$

11. Solve the following equation: $\frac{1}{12}\left((x-5)^2+8\right) = 6$

12. Solve the following equation: $2(x+5)^2-15 = 17$

13. Solve the following equation: $9(x-9)^2-5 = 139$

14. Solve the following equation: $2(x+6)^2+8 = 106$

15. Solve the following equation: $5(x+4)^2+16 = 141$

16. Solve the following equation: $\frac{1}{12}(x+4)^2-14 = -11$

17. Solve the following equation: $\frac{1}{2}\left((x+5)^2+16\right) = 16$

18. Solve the following equation: $\frac{1}{2}\left((x-4)^2+20\right) = 60$

19. Solve the following equation: $2(x+7)^2+3 = 35$

20. Solve the following equation: $3\left((x+9)^2+8\right) = 99$

15. $x = 1$ and $x = -9$

16. $x = 2$ and $x = -10$

19. $x = -3$ and $x = -11$

11. $x = 13$ and $x = -3$

10. $x = -2$ and $x = -10$

13. $x = 13$ and $x = 5$

17. $x = -1$ and $x = -9$

6. $x = 4$ and $x = -12$

20. $x = -4$ and $x = -14$

2. $x = 16$ and $x = -4$

14. $x = 1$ and $x = -13$

9. $x = -3$ and $x = -11$

4. $x = 2$ and $x = -16$

5. $x = -4$ and $x = -14$

12. $x = -1$ and $x = -9$

8. $x = 13$ and $x = 3$

3. $x = 15$ and $x = 5$

18. $x = 14$ and $x = -6$

7. $x = 14$ and $x = -2$

1. $x = 9$ and $x = 1$